

Mackin Fairy Shrimp - *Streptocephalus mackini*

Abundance: Unknown

Status: NSSU

NatureServe: G5 SNR

Population Status:

Limiting Factor:

Comment:

Introduction

Fairy shrimp are aquatic crustaceans in the class Branchipoda and order Anostraca. The mackin fairy shrimp have translucent, elongate, delicate bodies (Dodson et al. 2010) that can be white, green, blue, yellow, or red in color (Thorp and Rogers 2011). The species have 11 pairs of legs and lack a carapace. Individuals can grow up to 3.5 cm (1.4 inches) in length. Fairy shrimp swim upside-down and live in temporary aquatic habitats (rock pools, playas, roadside ditches, etc.) often with several other species of Branchipoda (Maeda-Martinez et al. 1997). The mackin fairy shrimp is known from 4 states (NatureServe 2016; Tronstad, unpublished data) but is not ranked. The fairy shrimp is ranked as secure across their range. Fairy shrimp are typically filter feeders and can develop from egg to adult in 6 to 45 days depending on the temperature of the water and other conditions (Dodson et al. 2010). Generally, fairy shrimp complete one generation and produce resting eggs during the time that a temporary habitat is inundated with water (Dodson et al. 2010). The eggs of many species requires diapause before hatching. Temperature, daylight length, dissolved oxygen concentration and salinity may trigger encysted eggs to release from dormancy. Eggs can be produced parthenogenetically or sexually. The cysts of fairy shrimp are easily crushed, especially when they are wet (Hathaway et al. 1996). Minimizing off road vehicles and foot traffic in temporary aquatic habitats during the dry and wet season would reduce the risk of crushing fairy shrimp cysts.

Habitat

The mackin fairy shrimp lives in temporary pools, seasonal wetlands, vernal pools and playas (Thorp and Rogers 2011).

Problems

Conservation Actions

Monitoring/Research

The Wyoming Game and Fish Department and Wyoming Natural Diversity Database collected specimens of fairy shrimp since 2010 to estimate the distribution of these species.

Recent Developments

The Wyoming Game and Fish Department and the Wyoming Natural Diversity Database collected fairy shrimp from across Wyoming between 2010 and 2013 and mackin fairy shrimp were collected from 9 locations.

References

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SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need: February 2016. Wyoming Game and Fish Department. Note that brown indicates the current known range of the species.